

606

A5C1

v. 50 p. 1

## INDEX

## ABSORPTION

"Absorption of Hydro-Electric Power by Existing Systems", 214.

ADAMS, EDWARD DEAN.—Appointed Representative of Society on Engineering Foundation, 351.

Additions to Engineering Societies Library, 36, 95, 306.

Additions to Engineering Societies Library. *See also* Book Notices.

Addressograph of Society.—Rules for Use of, 381; Revised Rules Relative to Use of, Adopted by Executive Committee of Board of Direction, 492.

Advisory Board on Highway Research of National Research Council. *See* National Research Council.

Advisory Committee on Structures and Fabricated Metals.—Work of, 536.

Aims and Activities.—Authority Granted Secretary to Print New Edition of, 184.

Alfred Noble Memorial.—San Francisco Section Subscribes to Fund for, 79; Cleveland Section Subscribes to Fund for, 126; Report of Committee on, 136; Action of Executive Committee and Board of Direction Relative to Remitting Loan to Committee on, 165, 178.

ALLEN, ALBERT P.—Discussion by, 578; Paper by, 578.

ALLEN, C. M.—Paper by, 214; Discussion by, 214; Awarded the Laurie Prize, 576.

ALLEN, KENNETH.—Discussion by, 217.

American Academy of Political and Social Science.—Invitation of, to Society to Appoint Representatives to Attend Conference on "The Government, the People and the Price of Coal", and Appointment of Representatives, 183; Appointment of Representatives of Society to Attend Annual Meeting of, 399.

American Association for the Advancement of Science.—Appointment of Representatives of Society to Attend Meeting of, 549.

American Association of State Highway Officials.—Letter of Committee on Standards of, Relative to Suggested Joint Committee on Steel Highway Bridges, 196.

American Bureau of Welding.—Work of Committee on Welded Rail Joints of, 443.

American Construction Council.—Action of Executive Committee of Board

## AMERICAN

of Direction Relative to Request of, That Society Become an Associate Member of, 396; Meeting of, 441, 551; Appointment of Representative of Society to Attend Annual Meeting of, 442.

American Engineering Standards Committee.—Authorization of, and Appointment of Representative of Society on Committee to Study Subject of Preferred Numbers of, 180, 352, 382; Action of Executive Committee of Board of Direction Relative to Question of Formal Submission to, Of Specifications for Design and Construction of Steel Highway Bridge Superstructure, 350; Appointment of Representatives of Society on, 351, 382; Approval by, Of Specifications for Welded and Seamless Steel Pipe and Welded Wrought Iron Pipe, 529; Appointment of Representative of Society on Sectional Committee on Underground Transportation in Coal Mines of, 536; Appointment of Representative of Society on Sectional Committee on Drainage in Coal Mines of, 536.

American Institute of Steel Construction.—Letter of, Relative to Formation of Joint Committee on Steel Highway Bridges, 197.

American Marine Congress.—Appointment of Representative of Society to Serve on General Committee of, 184.

American Mining Congress.—Appointment of Representatives of Society to Attend Annual Convention of, 549.

American Peace Award.—Action of Executive Committee of Board of Direction Relative to Letter from Policy Committee of, 181.

American Public Health Association.—Meeting of Sanitary Engineering Division with Sanitary Engineering Section and Laboratory Section of, 569.

American Society for Testing Materials.—Appointment of Representative of Society on Sectional Committee on Fire Tests of Materials and Construction of, 182, 352, 382.

American Society of Engineers.—Action of Executive Committee of Board of Direction Relative to Name of, 181; Information Relative to Forma-

## AMERICAN

## BARTHOLOMEW

- tion of, 326, 399; Action of Board of Direction Relative to Name and Badge of, 436.
- American Water-Works Association.—Joint Meeting of, And Sanitary Engineering Division, 216.
- AMMANN, O. H.—Discussion by, 579.
- ANDERSON, GEORGE GRAY.—Resolutions of Board of Direction Relative to Death of, 165; President Authorized to Appoint Committee to Prepare Memoir of, 164; Resolutions of Informal Conference of Local Sections Relative to Death of, 220.
- Announcements, 25, 86, 296, 366, 405.
- Annual Convention, 54th, 1924, Pasadena, Calif.—Announcement Relative to, 378; Brief Account of, 425.
- Annual Meeting, 71st, 1924.—Committee on Arrangements and Local Committee for, 25; Brief Account of, 78, 85; Minutes of, 135, 154, 163; Approval by, Of Resolution Relative to Reduction of Federal Income Taxes, 151; Adoption by, Of Resolutions Relative to Sanitary Engineers, 154; Excursions and Entertainments at, 222; Approval of Minutes of, 347.
- Annual Tables of Constants and Numerical Data. Physical, Chemical and Technological.—Action of Executive Committee of Board of Direction Relative to Contributing to Work of, 182.
- Applicants for Membership. *See* Membership.
- Application for Membership Form. *See* Membership.
- Arch Dam Investigation.—Financial Assistance for, 72; Progress of, 112; Resolution of Los Angeles Section Relative to, 391.
- Arches, Reinforced Concrete. *See* Concrete and Reinforced Concrete Arches, Special Committee on.
- Atlanta Meeting. *See* Spring Meeting, 1924, Atlanta, Ga.
- Atlanta Section.—Abstract of Minutes of Meetings of, 80, 124; Election of Officers of, 81; Name Changed to Georgia Section, 124; Request of, To Change Name, 199; Approval of Change in Name of, 350.
- Atlanta Section. *See also* Georgia Section.
- Badge of Society.—Abuse of, 10.
- BAGBY, F. C.—Discussion by, 578.
- BALL, CHARLES B.—Discussion by, 578.
- Ballot for Officers.—Report of Tellers on, 152; Appointment of Tellers to Canvass, Authorized, 399; Date for Sending Out, Determined, 404; Appointment of W. F. Reeves as Chairman of Committee to Canvass, 439.
- BARTHOLOMEW, HARLAND.—Discussion by, 219; Paper by, 578.
- BATES, ONWARD.—Presentation of Certificate of Honorary Membership to, 139.
- BEACH, LANSING H.—Letter of, Relative to Proposed Department of Public Works, 165, 571.
- BEARDSLEY, J. W.—On Committee on Prizes, 438.
- BEGGS, G. E.—Discussion by, 519, 579.
- BEGIEN, R. N.—On Public Relations Committee, 209.
- BELCHER, WALLACE E.—Discussion by, 270.
- BERKEY, CHARLES P.—Paper by, 163, 223.
- BEYER, A. H.—Discussion by, 164.
- BIBBINS, J. ROWLAND.—Paper by, 578.
- BIXBY, WILLIAM H.—Appointed Representative of Society to Attend Meeting of American Association for the Advancement of Science, 549.
- BLAIR, ALEXANDER.—Discussion by, 217.
- BLANCHARD, A. H.—Discussion by, 578.
- BLANCHARD, MURRAY.—On Committee on Prizes, 438.
- BLOSSOM, FRANCIS.—On Sub-Committee of Public Relations Committee, 433.
- Board of Direction.—Minutes of Meetings of, 22, 164, 192, 208, 353, 400, 426, 570; Annual Report of, 135, 224; Adoption of Annual Report of, 165; Lansing H. Beach Invited to Address, Relative to Reorganization of Federal Engineering Work, 165; Approval of Minutes of Meetings of, 178; Approval of Taking Group Photograph of, 178; Appointment of Committee to Prepare Annual Report of, 182; Standing Committees of, 208; Dates for Future Meetings of, 211; Decision of, To Dispense with Intermediate Meetings Except November Meeting, 404.
- Bonus Bill.—Action of Board of Direction Relative to, 212.
- Book Notices, 36, 95, 306, 367, 416, 457, 505, 532, 589.
- Book Notices. *See also* Additions to Engineering Societies Library.
- BOWEN, OSCAR.—On Committee on Honorary Membership, 210.
- BOWMAN, JAMES S.—Discussion by, 577.
- BREED, H. ELTINGE.—Presents Paper, 218.
- BREWER, C. E.—Paper by, 578.
- Bridge Design and Construction, Special Committee to Consider and Recom-

## BRIDGES

Recommend Specifications for.—Progress Report of, 158; Action of Executive Committee of Board of Direction Relative to Formal Submission to American Engineering Standards Committee of Specifications for Design and Construction of Steel Highway Bridge Superstructure of, 350. Bridges, Special Committee on Impact in Highway. See Impact in Highway Bridges, Special Committee on.

BROWN, BAXTER L.—Suggestions of, Relative to Protection of Forests, 180.

BRUSH, WILLIAM W.—Appointed Representative of Society to Attend Conference on Standardization of Cast-Iron Pipe, 438.

BUCK, HAROLD W.—Paper by, 22.

Budget for 1923.—Action of Executive Committee and of Board of Direction Relative to Additional Appropriation for, 178, 186.

Budget for 1924.—Action of Executive Committee of Board of Direction Relative to, 178; Adoption of, By Board of Direction, 185, 209; Appointment of, For Work of Special Committees, 212.

Buffalo Section.—Abstract of Minutes of Meetings of, 124, 501; Election of Officers of, 501.

"Building Line Zoning", presented and discussion, 578.

BUSH, LINCOLN.—On Executive Committee of Board of Direction, 208; On Committee on Honorary Membership, 210; Presides at Meeting, 347, 519.

By-Laws.—Decision of Executive Committee of Board of Direction Relative to Changing, To Provide for Standing Committee on Registration of Engineers, 182; Proposed Amendment to Article I of, Relative to Membership, 197; Proposed Amendment to Article II of, Relative to Dues, 197; Proposed Amendment to Article III of, Relative to Carrying on Business of Society in Case of Illness of Secretary or Treasurer, 198; Proposed Amendment to Article V of, Relative to Student Chapters, 206; Proposed Amendment to Article IV of, Relative to a Committee on Technical Activities and Meetings and a Committee on Publications, 208.

Cement, Congress. See International Cement Congress.

## CEMENT

Cement, Portland.—Appointment of Representative of Society to Attend Celebration of the One Hundredth Anniversary of the Invention of, 586.

Cement, Special Committee on.—Report of Committee on Research on Appointment of, 202; Authorization of Appointment of, 204; Appointment of, Withheld, 352.

Central Committee on Lumber Standardization. See Lumber Standardization.

Central Illinois Section.—Approval of Constitution and Authorization of Formation of, 211; Abstract of Minutes of Meetings of, 449, 587; Election of Officers of, 449.

Central Ohio Section.—Abstract of Minutes of Meetings of, 125; Election of Officers of, 126.

CHANNING, J. PARKE.—On Sub-Committee of Public Relations Committee, 433.

CHESTER, JOHN N.—On Committee on Technical Activities and Publications, 209.

CHEVALIER, WILLARD TOWNSHEND.—Biographical Sketch of, 523.

Cincinnati Section.—Abstract of Minutes of Meetings of, 81, 338, 449, 554, 587; Election of Officers of, 449.

City Planning Division.—Abstract of Minutes of Meetings of, 218, 219, 677; Election of Executive Committee of, 219; Annual Report of, 253; Approval of Constitution of, 398.

Civil Engineering Work.—Foreign Standards for, 446.

Clemson (Agricultural and Mechanical College of South Carolina) Student Chapter.—Activities of, 345.

Cleveland Section.—Abstract of Minutes of Meetings of, 126, 449; Contribution of, To Alfred Noble Memorial Fund, 126; Election of Officers of, 126.

COHEN, A. B.—Discussion by, 519.

College of the City of New York Student Chapter.—Activities of, 394.

Collingwood Prize.—Award of, 149.

Colorado Section.—Abstract of Minutes of Meetings of, 15, 123, 337, 391, 449, 554; Election of Officers of, 530.

Columbia University Scholarship.—Report of Committee on, 137.

Committees, Reports of, etc. See Names of Committees.

"Comparative Tests on Experimental Draft Tubes", presented and dis-



## COMPENSATION

discussed, 214; Awarded the Laurie Prize, 576. Compensation of Engineers, Committee on.—Authorization of Appointment of, 576.

COMSTOCK, CHARLES W.—Discussion by, 347.

Concrete and Reinforced Concrete Arches, Special Committee on.—Progress Report of, 161, 290; Discussion on Financing of, By Engineering Foundation, 213; Appropriation to, By Engineering Foundation, 352; Work of, 384.

CONDON, T. L.—On Committee on Professional Conduct, 209; On Committee on Registration of Engineers, 209, 352; Appointed Representative of Society on Advisory Committee on Structures and Fabricated Metals of U. S. Bureau of Standards, 439; On Committee on Districts and Zones, 439.

Conference on Heat Transfer Through Wall Structures. *See* Heat Transfer Through Wall Structures, Conference on.

Conference on Methods of Testing Highway Materials. *See* Methods of Testing Highway Materials, Conference on.

Conference on Schedule of Proposed Sheet Steel Simplification. *See* Schedule of Proposed Sheet Steel Simplification, Conference on.

Conference on Simplification of Manhole Frames and Covers for Street Use. *See* Simplification of Manhole Frames and Covers for Street Use, Conference on.

Conference on Standardization of Cast Iron Pipe. *See* Standardization of Cast Iron Pipe, Conference on.

Conference on Steel Reinforcing Bars. *See* Steel Reinforcing Bars, Conference on.

Congressional Committee on Reorganization of Executive Departments. *See* Federal Engineering Work, Reorganization of.

Congressional Record.—Excerpts from, Relating to Reorganization of Federal Government Departments, 431, 433.

Connecticut Section.—Abstract of Minutes of Meetings of, 449; Election of Officers of, 449.

CONSTANT, F. H.—Appointed Representative of Society to Attend Fiftieth Anniversary of the Société Vaudoise des Ingénieurs et des Architectes, 438; Appointed Representative

## CONSTRUCTION

of Society to Attend Advisory Committee on Structures and Fabricated Metals of U. S. Bureau of Standards, 439; Report of, on Fiftieth Anniversary of Société Vaudoise des Ingénieurs et des Architectes, 546.

Construction Contracts. *See* Standard Construction Contracts, Special Committee on.

Contractors, Cantonment.—Charges Resulting in Indictments of, Dismissed, 325.

Contracts.—Available Data to Be Compiled on Subject of, Services and Fees to Be Reported on at Meeting of Joint Conference Committee, 399.

Convention of Sanitary Engineers. *See* Sanitary Engineers.

Co-operation, Joint Committee on. *See* Joint Committee on Co-operation on Public Matters.

CORBETT, HARVEY W.—Discussion by, 219.

Cornell University Student Chapter.—Abstract of Minutes of Meetings of, 453; Election of Officers of, 453.

COX, LEONARD M.—Appointed Representative of Society to Attend Annual Convention of American Mining Congress, 549.

CRANE, JACOB L., JR.—Paper by, 219, 578; Discussion by, 219.

Croes Medal.—Award of, 146, 576.

CROSBY, W. W.—Discussion by, 219, 578.

Current Civil Engineering Literature, 45, 103, 316, 369, 417, 462, 506, 533, 558, 590.

CURTIS, F. S.—On Committee on Honorary Membership, 210.

CURTISS, CHARLES D.—Appointed Representative of Society to Attend Conference on Methods of Testing Highway Materials, 549.

Dams, Arch. *See* Arch Dam Investigation.

DAVIS, ARTHUR P.—Facts Relative to Resignation of, As Director of U. S. Reclamation Service, 7; Discharge of Committee on Dismissal of, 189; On Committee on Honorary Membership, 210.

DAVISON, GEORGE S.—On Committee on Professional Conduct, 209; On Committee on Honorary Membership, 210; Discussion by, 219.

Dayton Section.—Abstract of Minutes of Meetings of, 81, 127, 338; Election of Officers of, 81.

Detroit Meeting. *See* Fall Meeting, 1924. Detroit, Mich.



## DETROIT

Detroit Section.—Honors President Charles F. Loweth, 16; Abstract of Minutes of Meetings of, 338, 449.

DEWELL, H. D.—Appointed Representative of Society to Serve on Committee on Building for Safety with Special Reference to Earthquake and Fire Hazard of Seismological Society, 489; Biographical Sketch of, 526.

DILLMAN, G. C.—Discussion by, 578.

Directors. *See* Board of Direction.  
"Distribution of Intense Rainfall and Some Other Factors in the Design of Storm-Water Drains", presented and discussed, 217.

District of Columbia Section.—Election of Officers of, 81.

Districts and Zones, Committee on.—Action of Executive Committee of Board of Direction Relative to Report of, 347; Appointment of Committee on, 439; Action of Board of Direction Relative to Report of, 570.

Division of Engineering, National Research Council. *See* National Research Council.

DOWNES, JOHN R.—Discussion by, 217.  
"Drainage", presented and discussed, 578.

Drexel Institute Student Chapter.—Activities of, 394.

Dues, Annual.—Proposed Amendment to Article 2, of By-Laws Relative to, 197.

Duluth Section.—Abstract of Minutes of Meetings of, 127, 128, 129, 339, 391, 449, 530, 554, 587; Election of Officers of, 449; Resolution of, Relative to Death of Secretary Dunlap, 530.

DUNLAP, JOHN H.—Visits of, To Local Sections, 4, 57, 334, 439; Elected Secretary, 404; Injured in Train Wreck, 425; Increase in Salary of, 436; Information Relative to Death of, 489; Resolutions of Board of Direction Relative to Death of, 492.

DUNN, C. P.—Discussion by, 214.  
DYER, A. J.—On Committee on Student Chapters, 209.

EADS, JAMES BUCHANAN.—Progress Report of Committee on Bust of, 187; Action of Executive Committee of Board of Direction Relative to Unveiling Bust of, 350; Bust of, Unveiled in Hall of Fame, 380, 442.

## EARTHQUAKES.

Earthquakes on Engineering Structures, Committee on Effects of.—Program for Work of, 62, 138; Appointment of Committee on, 183; Appointment of Consulting Members on, 183; Letters Inviting Co-operation in Work of, 183.

EASBY, WILLIAM, JR.—Appointed Representative of Society to Attend Annual Meeting of American Academy of Political and Social Science, 399.  
EBASHI, TEIJI.—On Committee on Effects of Earthquakes on Engineering Structures, 183.

EDDY, HARRISON P.—Paper by, 217; Appointed Representative of Society to Attend Kelvin Centenary Celebration, 438; Appointed Representative of Society to Attend International Conference of Sanitary Engineers, 439.  
Electrification of Steam Railways, Committee on.—Progress Report of, 161.  
Employees.—Secretary Formally Authorized to Engage, Of Society, 198.  
Employees. *See also* Government Employees.

Employment, Service. *See* Engineering Societies Employment Service.  
Engineering Contracts. *See* Contracts.

Engineering Foundation.—Activities of, 71, 581; Discussion by Executive Committee of Board of Direction Relative to, Financing Committees of Society, 213; Appointment of Edward Dean Adams and Robert Ridgway as Representatives of Society on, 351, 382; Appropriation of, To Committee on Steel Column Research, 352; Appropriation of, To Committee on Concrete and Reinforced Concrete Arches, 352.  
"Engineering Geology of the Catskill Water Supply", Awarded Croes Medal, 146.

Engineering Societies Building.—Conditions of Occupancy of, 190; List of Occupants of, 191; Action of Board of Direction Relative to Occupants of, 191.

Engineering Societies Building. *See also* Society Headquarters.  
Engineering Societies Employment Service.—Activities of, 5; Men Available, 34, 93, 303, 364, 412, 477, 514, 539, 565, 597; Positions Available, 412, 539, 565; Abstract of Report of, 550.

Engineering Societies Library.—Lending Service of, 6, 495; Book Notices, 36, 95, 306, 367, 416, 457, 505, 532, 556, 589; Report of Committee on Ways and Means of Making, Of

## ENGINEERING

Greater Use to Members, and Action of Board of Direction Relative to Matter, 188; Appointment of Representative of Society on Library Board of, 382; Support Given to, By Manufacturers, 447; Extension of Library Book Service of, 553.

Engineering Standards Committee. *See* American Engineering Standards Committee.

Engineering Work of Federal Government. *See* Federal Engineering Work, Reorganization of.

Engineers, Registration of. *See* Registration of Engineers, Committee on.

Executive Committee of Board of Direction.—Approval of Minutes of Meetings of, 178, 347, 396; Abstract of Minutes of Meetings of, 178, 212, 347, 396, 492; Appointment of, 208; Approval by, Of Detailed Financial Statement of Work of Society, 189. "Explorations in the Desert Regions of Central Asia", 163, 223.

"Factors in the Zoning of Cities", discussed, 578.

Fall Meeting, 1924, Detroit, Mich.—Arrangements for, 436, 519; Program of, 490; Brief Account of, 569; Excursions and Entertainments at, 569; Abstract of Minutes of, 569.

"Family Density Regulation", presented and discussed, 578.

FARNHAM, ROBERT.—On Committee on Registration of Engineers, 352.

Federal Engineering Work, Reorganization of.—Second Washington Trip of Committee on, 2; Congressional Hearing Relative to, 113, 383; Letter of Lansing H. Beach Relative to, 165; Report of Committee on, 177; Resolutions of Public Works Conference Relative to, 177; Action of Board of Direction Relative to, 210, 430, 432; Discharge of Committee on, 210; Suggestion of Executive Committee of Board of Direction Relative to, 350; Resolutions of Board of Direction Relative to, 403; Report of Public Relations Committee on, 430; Report of the Sub-Committee of the Public Relations Committee on, 432, 570; Letters Relative to, 571.

Federal Engineering Work, Reorganization of. *See also* Public Works Conference.

Federal Income Taxes. *See* Taxes, Federal Income.

Federal Tax Board.—Engineers Urged to Serve on, 528.

## FIELD

FELD, JACOB.—Awarded Collingwood Prize, 149.

FENKEL, GEORGE H.—On Committee on Local Sections, 209; Paper by, 577. Fifteenth Floor, Committee on Rearrangement of. *See* Society Headquarters.

Financial Statement of Work of Society.—Approval by Executive Committee of Board of Direction of Detailed, 189.

FINNEY, J. H.—On Sub-Committee of Public Relations Committee, 433.

Fire Prevention, of Docks, Piers and Wharves, Special Committee on.—Progress Report of, 155, 272; Discharge of, 213; Action of Executive Committee of Board of Direction Relative to Report of, 348.

FISHER, EDWIN A.—Paper by, 578.

FITZGERALD, DESMOND.—Presentation of Certificate of Honorary Membership to, 141; Address by, 143.

Flood Protection Data, Special Committee on.—Progress Report of, 160.

FOLTZ, MAX.—On Sub-Committee of Public Relations Committee, 433.

FORBES, STEPHEN A.—Discussion by, 577.

Forest Preservation.—Action of Public Relations Committee Relative to, 9; Approval of Executive Committee of Board of Direction of Suggestion of Baxter L. Brown Relative to, 180.

Founder Societies.—Secretaries of, Made Members of Engineering Division of National Research Council, 71, 184; Report of Committee on Local Sections Relative to Closer Co-operation Between the Local Sections of the, 204; Outline of Policy of, Relative to Co-ordination of Local Section Activities, 497.

FOWLER, CHARLES EVAN.—Discussion by, 436, 579.

FOX, WILLIAM F.—Discussion by, 219.

FRANCIS, WALTER J.—Resolution of Board of Direction Relative to Death of, 402.

FRANKLIN, BENJAMIN.—Appointed Representative of Society on American Engineering Standards Committee, 352; Appointed Representative of Society to Attend Annual Meeting of American Academy of Political and Social Science, 399.

Franklin Institute.—Appointment of Representative of Society to Attend Centenary Celebration of, 439; Centenary Celebration of, 550.

## FREDERICKS

**FREDERICKS, IDA.**—Action of Board of Direction Relative to Service of, With Society, 199.

**Freeman Fund.**—Letter of John R. Freeman Presenting, To Society, 426; Telegram of Board of Direction Accepting, 427; Authorization and Appointment of Committee on, 428, 576.

**FREEMAN, JOHN R.**—Paper by, 22; On Public Relations Committee, 209; On Committee on Professional Conduct, 209; On Committee on Honorary Membership, 210; Discussion by, 214, 577; Presentation of Fund for Engineering Research to Society by, 426; Telegram of Board of Direction to, Relative to Fund for Engineering Research, 427; Appointed Representative of Society to Attend Kelvin Centenary Celebration, 438; Remarks of, At Kelvin Centenary Celebration, 529.

**Friction of Sludge, Committee of Sanitary Engineering Division on.**—Progress Report of, 258.

**FRINK, E. A.**—Appointed Representative of Society to Attend Conference on American Lumber Standards, 184.

**FULLER, A. H.**—Discussion by, 164.

**FULLER, GEORGE W.**—Paper by, 217; Appointed Representative of Society to Attend International Conference of Sanitary Engineers, 439; Discussion by, 577.

**GABY, FREDERICK A.**—Appointed Representative of Society to International Mathematical Congress, 438.

**GALLOWAY, J. D.**—On Committee on Effects of Earthquakes on Engineering Structures, 183.

**GAUSMANN, ROY W.**—Awarded Laurie Prize, 148.

**George Washington University.**—Appointment of Representative of Society to Attend Inauguration of President of, 183.

**Georgia Section.**—Abstract of Minutes of Meetings of, 339, 587.

**Georgia Section.** See also Atlanta Section.

**GILMAN, CHARLES.**—Biographical Sketch of, 524.

**GODFREY, EDWARD.**—Discussion by, 164, 519.

**GOLDBECK, A. T.**—Paper by, 217; Discussion by, 217.

**GOLDMARK, HENRY.**—Address by, 149, 579.

**GOODRICH, E. P.**—Discussion by, 219, 569, 578.

## GOURLEY

**GOURLEY, H. J. F.**—Discussion by, 347. Government Departments, Reorganization of. See Federal Engineering Work, Reorganization of.

**Government Employees.**—Letter of Washington Academy of Sciences Relative to Attendance of, At Scientific Congresses, and Action of Board of Direction Relative to Matter, 181, 188.

**Government Reorganization.** See Federal Engineering Work, Reorganization of.

**Government, the People and the Price of Coal, Conference on.**—Appointment of Representatives of Society to Attend, 183.

**GROVER, N. C.**—Discussion by, 569.

**GRUNSKY, C. E.**—Address by, 153, 569; Presides at Meeting, 154, 569; On Committee on Honorary Membership, 210; Dinner of San Francisco Section to, 336; Visits of, To Local Sections, 439, 583.

**HAGEMAN, H. A.**—Discussion by, 214.

**HALE, RICHARD A.**—Discussion by, 214. Hall of Fame.—Bust of James Buchanan Eads Unveiled in, 380.

**HAMMOND, GEORGE T.**—Discussion by, 217.

**HAND, GEORGE W.**—Appointed Representative of Society to Attend Purdue University Semi-Centennial, 439.

**HANNA, JOHN M.**—On Sub-Committee of Public Relations Committee, 433.

**HANSEN, PAUL.**—Appointed Representative of Society to Attend International Conference of Sanitary Engineers, 439; Paper by, 578.

**HARDESTY, SHORTBRIDGE.**—Discussion by, 579.

**HARRINGTON, JOHN L.**—Presides at Meeting, 22; On Sub-Committee of Public Relations Committee, 433.

**HART, J. H.**—Discussion by, 569.

**HARZA, L. F.**—Discussion by, 569.

**HATTON, T. CHALKLEY.**—Appointed Representative of Society to Attend International Conference of Sanitary Engineers, 439.

**HAYDEN, A. G.**—Discussion by, 164.

**HAZEN, ALLEN.**—Discussion by, 217, 347. Heat Transfer Through Wall Structures, Conference on.—Letter of U. S. Bureau of Standards Relative to Report of, And Action of Executive Committee of Board of Direction Concerning Matter, 182.

**Hering Medal.** See Rudolph Hering Medal.



## HERSCHEL

- HERSCHEL, CLEMENS.—Discussion by, 214.  
 "High Voltage Power Transmission", Awarded Rowland Prize, 146.  
 Highway Division.—Abstract of Minutes of Meetings of, 217, 218, 578; Organization of Executive Committee of, 218; Annual Report of, 252.  
 Highway Engineering Special Committee on.—Progress Report of, 157; Discharge of, 211.  
 "Highway Research in Illinois", presented, 218.  
 "Highway Transportation Surveys", presented and discussed, 578.  
 HILL, C. D.—Paper by, 219; Discussion by, 219.  
 Hiram F. Mills Fund.—Action of Board of Direction Relative to, 189.  
 HIRO, ISAMI.—On Committee on Effects of Earthquakes on Engineering Structures, 183.  
 HODAN, JOHN P.—Paper by, 22; Discussion by, 23, 214.  
 HOGG, THOMAS H.—Discussion by, 569, 577.  
 HOGUE, C. J.—On Special Committee on Timber, 396.  
 HOLLAND, CLIFFORD M.—On Executive Committee of Board of Direction, 208; Notice of Death of, 583.  
 HOLMES, GLENN D.—On Committee on Technical Activities and Publications, 209; On Committee on Districts and Zones, 439.  
 HOLTMAN, D. F.—On Special Committee on Timber, 396.  
 HONNESS, GEORGE G.—Address of, 148.  
 Honorary Membership.—Ceremony of Presenting Certificates of, 138; Personnel of Committee on, 210.  
 HOSKINS, J. K.—Discussion by, 577.  
 HOVEY, OTIS E.—Elected Treasurer, 404; Discussion by, 579.  
 HOWE, J. M.—On Committee on Local Sections, 209.  
 HUBBARD, PRÉVOST.—Discussion by, 217.  
 HUBBELL, C. W.—On Library Board of United Engineering Society, 382, 399; Paper by, 577.  
 HUBER, WALTER L.—On Public Relations Committee, 209; On Committee on Registration of Engineers, 352.  
 HUDSON, C. W.—Discussion by, 519.  
 HUMPHREY, RICHARD LEWIS.—Biographical Sketch of, 521.  
 HUNT, A. M.—Appointed Representative of Society to Serve on General Committee of American Marine Congress, 184.

## HURD

- HURD, CHARLES H.—Appointed Representative of Society to Attend International Conference of Sanitary Engineers, 439.  
 HYATT, EDWARD, JR.—Appointed Representative of Society to Attend Annual Convention of American Mining Congress, 549.  
 Hydraulics Phenomena, Special Committee on.—Progress Report of, 158; Abstract of Minutes of Meetings of, 354, 355.  
 Illinois Section.—Abstract of Minutes of Meeting of, 129; Election of Officers of, 130; Approval of Revised Constitution of, 199; Action of Board of Direction Relative to Change in Name of, 199.  
 "Imhoff Tanks—Comparison of Operating Results", Symposium on, 217.  
 Immigration Conference. *See* National Immigration Conference, 13.  
 Impact in Highway Bridges, Special Committee on.—Abstract of Minutes of Meetings of, 23, 584; Progress Report of, 155, 260; Authorized to Purchase Special Instrument, 210; Investigations of, 437.  
 Income Taxes. *See* Taxes, Federal Income.  
 "Increasing the Capacity of Existing Streets", presented and discussed, 219.  
 Indictments of Cantonment Contractors.—Charges Resulting in, Dismissed, 325.  
 Information for Applicants.—Action of Executive Committee of Board of Direction Relative to Change in Printed Sheet Entitled, 184.  
 Institution of Civil Engineers.—Letter of, Relative to Visit of Members of Society to England and Reply to Letter, 193, 194.  
 Institution of Sanitary Engineers.—Arrangements to Attend Convention under Auspices of, 181; Appointment of Representatives of Society to Attend Convention under Auspices of, Authorized, 397.  
 Institution of Structural Engineers.—Letter of, Relative to Society Sending Delegates to International Cement Congress, 350.  
 "Interconnection of Southern Appalachian Power Systems", presented and discussed, 23.  
 International Cement Congress.—Information Relative to, 329; Letter of

# INTERNATIONAL

718 Institution of Structural Engineers  
 878 Relative to Society Sending Delegates to, 350; Appointment of Representative of Society to Attend, 382, 402  
 International Conference of Sanitary Engineers.—Appointment of Representatives of Society to Attend, 439; Brief Account of, 526  
 International Mathematical Congress.—Appointment of Representatives of Society to Attend, 438  
 Iowa Section.—Abstract of Minutes of Meetings of, 16  
 Iowa State College Student Chapter.—Abstract of Minutes of Meetings of, 453; Election of Officers of, 453  
 Irrigation Division.—Approval of Revised Constitution of, 199; Annual Report of, 248  
 Irrigation Hydraulics, Special Committee on.—Progress Report of, 158, 288; Abstract of Minutes of Meetings of, 549  
 Items of Interest, 1, 55, 109, 325, 377, 425, 569  
 JACKSON, WILLIAM B.—Discussion by, 214  
 JACOBY, HENRY S.—Discussion by, 579  
 JAKOBSEN, B. F.—Discussion by, 347; Awarded the Norman Medal, 576  
 JANNI, A. C.—Paper by, 519  
 JEWETT, F. B.—Address by, 146  
 John Fritz Medal.—Award of, 111, 384  
 Johns Hopkins University Student Chapter.—Activities of, 394  
 Joint Committee on Co-operation on Public Matters.—Meeting of, 2; Discharge of, 109, 189  
 Joint Committee on Steel Highway Bridges.—Letters Relative to Formation of, And Action of Board of Direction Relative to, 196  
 Joint Committee on Structural Safety.—Report of, 501  
 Joint Conference Committee.—Meeting of, 109, 189; Approval by Board of Direction of Formation of, 165; C. F. Loweth Appointed Alternate to C. E. Grunsky on, 209; Subject of Engineering Contracts, Services and Fees Considered by, 399  
 JONES, E. LESTER.—Appointed Representative of Society to Attend Meeting of American Association for the Advancement of Science, 549  
 JUSTIN, JOEL D.—Awarded the Croes Medal, 576  
 KABASHIMA, MASAYOSHI.—On Committee on Effects of Earthquakes on Engineering Structures, 183

# KANSAS

Kansas City Section.—Abstract of Minutes of Meetings of, 130, 449, 587; Election of Officers of, 130  
 Kansas Section.—Abstract of Minutes of Meetings of, 130; Election of Officers of, 130  
 KEITH, HERBERT C.—Discussion by, 436  
 Kelvin Centenary Celebration.—Authorization and Appointment of Representative of Society to Attend, 397, 438; Remarks of Representative of Society at, 529  
 Kelvin Medal.—Awarded to Elihu Thomson, 56  
 KENNISON, KARL R.—Discussion by, 347  
 KERSHAW, G. BERTRAM.—Appointed Representative of Society to Attend International Conference of Sanitary Engineers, 439  
 KETCHUM, MILO S.—Appointed Representative of Society on American Engineering Standards Committee, 351; Biographical Sketch of, 522  
 KNOWLES, MORRIS.—Paper by, 578; Discussion by, 578  
 KURTZ, FORD.—Paper by, 347; Discussion by, 347  
 Lafayette College Student Chapter.—Abstract of Minutes of Meetings of, 453  
 "Lateral Earth Pressure", Awarded Collingwood Prize, 150  
 Laurie Prize.—Award of, 148, 576  
 LEAVITT, CHARLES W.—Discussion by, 578  
 LEE, W. S.—Paper by, 23  
 Lehigh Valley Section.—Election of Officers of, 81  
 LEWIS, HAROLD M.—Discussion by, 436  
 Library Board of United Engineering Society. See United Engineering Society  
 Library of the Engineering Societies. See Engineering Societies Library  
 Licensing of Engineers. See Registration of Engineers, Committee on  
 LINDBLAD, A.—Discussion by, 569  
 LLEWELLYN, F. T.—Appointed Representative of Society on Committee to Study Subject of Preferred Numbers, 352; Appointed Representative of Society to Attend Conference on Schedule of Proposed Sheet Steel Simplification, 586  
 Local Sections.—Visits of Secretary to, 4, 399, 439; Activities of, 15, 79, 123, 337, 391, 449, 501, 530, 554, 587; List of, And Officers of New, 28, 86, 297, 357; Action of Executive Committee of Board of Direction Relative to Allotments to, 182; Approval of Constitutions of, 184;

## LOCAL

Report of Committee on, 204; Discussion and Action of Board of Direction on Recommendations of Committee on, Concerning: Co-operation of, With Those of Founder Societies; Expenditure of Funds of; Assignment of Members to; Publication of Bulletin of; Affiliation of, With Student Chapters; Annual Conference of Representatives of; Mileage Rates for Representatives of; Definite Boundaries for, 204; Action of Board of Direction Relative to Report of Committee on, 206, 211; Appointment of Committee on, 209; Abstract of Minutes of Informal Conference of Representatives of, 219, 220; Rules of Order of Informal Conference of Representatives of, 221; Action of Executive Committee of Board of Direction Relative to Issue of Report of 1923 Committee on, 396; Allotments Granted to, 398; Visits to, 399, 439, 583; Text and Adoption of Rules of Order for Local Sections Conference, 400, 428; Resolutions of Board of Direction Relative to Conference of, 428; Outline of Policy of Founder Societies Relative to Co-ordination of Activities of, 497.

Local Sections. *See also* Names of Local Sections.

"Locomotive Loadings for Railway Bridges", Awarded the Norman Medal, 145.

Los Angeles Section.—Abstract of Minutes of Meetings of, 17, 340, 391, 449, 530; Election of Officers of, 81, 341; Resolution of, Relative to Arch Dam Investigations, 391.

Louisiana Section.—Election of Officers of, 530.

LOWETH, CHARLES F.—Presides at Meetings, 135, 163; On Executive Committee of Board of Direction, 208; Appointed Alternate to C. E. Grunsky on Joint Conference Committee, 209; On Public Relations Committee, 209; On Committee on Honorary Membership, 210.

Lumber Standardization.—Work of Conferences on, 69, 444; Action of Executive Committee of Board of Direction Relative to Contributing to Work of Central Committee on, 180; Appointment of Representatives of Society to Attend Conferences on Lumber Standardization, 184.

LYLE, WILLIAM T.—Discussion by, 578.

LYMAN, R. R.—Discussion by, 569.

## IA MACGREGOR

MACGREGOR, R. A.—Discussion by, 217.

MACKALL, JOHN N.—Discussion by, 578.

MACKEY, H. M.—Discussion by, 578.

McCONNELL, I. W.—Discussion by, 347.

MCDONALD, HUNTER.—On Subcommittee of Public Relations Committee, 433.

McGEE, H. G.—Discussion by, 578.

McKAY, J. G.—Paper by, 579.

McLACHLAN, D. W.—Discussion by, 569, 577.

MADDEN, C. M.—Awarded Laurie Prize, 148.

MAIGNEN, P. A.—Discussion by, 217.

Mailing List of Society.—Revised Rules Relative to Use of, Adopted by Executive Committee of Board of Direction, 492.

MALONEY, E. W.—Discussion by, 214.

Mapping, Topographic.—Temple Bill Relative to, Of the United States, 65.

Marine Congress. *See* American Marine Congress.

Marquette University Student Chapter.—Activities of, 395.

MARSHALL, R. C., JR.—Re-appointment of, As Representative of Society on Washington Award, 399.

MARSTON, ANSON.—On Committee on Student Chapters, 209; On Committee on Honorary Membership, 210; On Committee on Registration of Engineers, 352; Paper by, 217.

MARSTON, FRANK A.—Paper by, 217.

MARX, CHARLES D.—On Committee on Prizes, 438.

MASON, GEORGE C.—Address by, 149; On Committee on Student Chapters, 209.

MAYHALL, FREDERICK A.—Discussion by, 569.

MEAD, ELWOOD.—Appointed Commissioner of U. S. Reclamation Service, 378; Resolution of Board of Direction Relative to Appointment of, As Commissioner of Reclamation, 402.

Medals.—*See* Prizes.

MEIGS, JOHN.—Appointed Representative of Society to Attend Conference on "The Government, the People and the Price of Coal", 184.

Meiji University Library, Tokyo, Japan.—Donations to, 328.

Membership.—Additions, 28, 88, 298, 359, 407, 480, 516, 541, 567, 599; Rein-statements, 90, 301, 362, 410, 487; Resignations, 90, 362, 410, 487, 517, 543; Deaths, 32, 92, 301, 363, 410, 487, 517, 543, 568, 600; Authority Granted Secretary to Send Letter to, Regarding Technical Divisions, 184; Recommended Changes in Forms



## MEN

Used by Applicants for, 184, 185; Approval by Board of Direction of Changes in Forms Used by Applicants for, 187; Invitation of Institution of Civil Engineers to, To Make Use of Premises While in England, 193; Proposed Amendment to Article I of By-Laws Relative to, 197; Action of Board of Direction Relative to Assigning, To Local Sections, 204; Approval of Proposed New Form of Printing Records of Applicants for, 347.

Men Available. See Engineering Societies Employment Service.

MERRIMAN, THADDEUS.—On Committee on Technical Activities and Publications, 209.

METCALF, LEONARD.—Address by, 141;

Presents Paper, 217.

Methods of Testing Highway Materials, Conference on.—Appointment of Representative of Society to Attend, 549.

MEYER, ADOLPH F.—Discussion by, 217.

Mileage Rates.—Action of Board of Direction Relative to Allowing, In Connection with Meetings of Local Sections, 204, 205; Action of Executive Committee of Board of Direction Relative to Collecting Information on, For Special Committees, 397.

MILLER, JOHN A., JR.—Paper by, 436.

MILLER, RUDOLPH P.—Appointed to Report on Program of Conference on Heat Transfer Through Wall Structures, 182; Appointed Representative of Society to Attend Annual Meeting of American Construction Council, 442; Discussion by, 578.

MILLIS, JOHN.—On Committee on Effects of Earthquakes on Engineering Structures, 183.

MILLS, HIRAM F. See Hiram F. Mills Fund.

Milwaukee Section.—Allotment Granted to, 398.

Minutes of Meetings of Board of Direction.—22, 164, 192, 208, 353, 400, 426, 570; Approval of, 178.

Minutes of Meetings of Executive Committee of Board of Direction, 178, 212, 347, 396, 492; Approval of, 178, 347, 396.

Minutes of Meetings of Technical Divisions, 22, 84, 213, 353, 577.

Minutes of Meetings of Society, 22, 85, 135, 164, 347, 436, 519, 578.

Missouri School of Mines and Metallurgy Student Chapter.—Authority Granted to Organize, 200.

## MODERN

“Modern Rail and Water Terminals with Reference to Chicago.” Awarded the Wellington Prize, 578.

MOLITOR, F. A.—Appointed Representative of Society to Attend National Immigration Conference, 13, 183.

Montana State College Student Chapter.

—Abstract of Minutes of Meeting of, 454; Election of Officers of, 454.

MOODY, LEWIS F.—Discussion by, 214.

MOORE, P. N.—On Sub-Committee of Public Relations Committee, 433.

MORSE, ROBERT B.—Appointed Representative of Society to Attend Conference on Simplification of Manhole Frames and Covers for Street Use, 586.

MUCKLESTON, H. B.—Discussion by, 347.

MURPHY, JOHN.—Paper by, 577.

Muscle Shoals Properties.—Resolutions of Board of Direction Relative to, 402.

NAGAO, HEMPEL.—On Committee on Effects of Earthquakes on Engineering Structures, 183.

Nashville Section.—Abstract of Minutes of Meeting of, 131.

National Immigration Conference.—Appointment of Representatives of Society to Attend, 13, 183; Report of Representatives of Society Appointed to Attend, And Action of Board of Direction Relative to Report, 194, 196.

National Industrial Conference Board.—Appointment of Representatives of Society to Attend Conference for Discussion of a National Immigration Policy, at Request of, 13, 183.

National Research Council.—Activities of Advisory Board on Highway Research of, 13; Secretaries of Founder Societies Appointed Members of Division of Engineering of, 71, 184; Authorization and Appointment of Representative of Society on Division of Engineering of, 398, 438; Appointment of Representative of Society on Advisory Board on Highway Research of Division of Engineering of, 489; Personnel Changes in Advisory Board on Highway Research of, 494.

New Jersey State Sewage Experiment Station.—Report Relative to, 255.

New York Section.—Abstract of Minutes of Meetings of, 18, 82, 131, 342, 392, 450, 501, 587; Report of Joint Committee on Structural Safety as Presented at Annual Meeting of, 501.

## NEW YORK

## PEACE

New York University Student Chapter.—Activities of, 345; Election of Officers of, 454.

NEWELL, J. P.—Awarded, Wellington Prize, 149.

NICOL, HERBERT E.—Appointed Representative of Society to Attend International Conference of Sanitary Engineers, 439.

NOBLE, ALFRED. See Alfred Noble Memorial.

NORCROSS, PAUL H.—Letter of, Relative to 1924 Spring Meeting, 151; Biographical Sketch of, 525.

Norman Medal.—Award of, 143, 576.  
North Carolina Section.—Abstract of Minutes of Meetings of, 19, 587; Election of Officers of, 19; Organization of, Approved, 184; Allotment Granted to, 398.

Northeastern Section.—Abstract of Minutes of Meetings of, 19, 132, 450; Election of Officers of, 132.

Northwestern Section.—Abstract of Minutes of Meetings of, 82, 450; Election of Officers of, 588.

OOKERSON, JOHN AUGUSTUS.—Resolution Relative to Death of, 401.

Officers of the Society. See Society, Officers of the.

Ohio State University Student Chapter.—Activities of, 395.

Oklahoma Section.—Abstract of Minutes of Meetings of, 450; Election of Officers of, 451.

OLDER, CLIFFORD.—Paper by, 218.

Oregon State Agricultural College Student Chapter.—Activities of, 345.

ORRICK, GEORGE A.—Paper by, 22; Discussion by, 214.

"Outline of the Work of the Committee on Ice Problems at Hydro-Electric Plants", presented and discussed, 577.

PAASWELL, GEORGE.—Discussion by, 519.

Pan American Scientific Congress.—Appointment of Representatives of Society to Attend, 489.

PARDOE, W. S.—Discussion by, 214.

PARSONS, H. DE B.—Discussion by, 569.

Pasadena Convention. See Annual Convention, 54th, 1924, Pasadena, Calif. Past-Presidents.—Action of Executive Committee and of Board of Direction Relative to Photographs of, 179, 186.

PAUL, CHARLES H.—Elected Director to Represent District No. 9, 401.

Peace Award. See American Peace Award.

Peace Plan.—Action of Board of Direction Relative to, 212.

PEARSE, LANGDON.—Appointed Representative of Society to Attend International Conference of Sanitary Engineers, 439; Paper by, 577.

PECK, L. F.—Discussion by, 217.

PEEK, FRANK WILLIAM, JR.—Awarded Rowland Prize, 146.

PEGHAM, GEORGE H.—Address by, 139.

Pennsylvania State College Student Chapter.—Plan of, To Award Annual Prizes, 454; Election of Officers of, 454.

PERRY, LYNN.—Discussion by, 214.

Philadelphia Section.—Abstract of Minutes of Meeting of, 451; Election of Officers of, 451.

PHILLIPS, T. GLENN.—Paper by, 578.

Photographs.—Approval of Taking Group, Of Board of Direction, 178; Action of Executive Committee and of Board of Direction Relative to, Of Past-Presidents, 179, 186; Secretary Authorized to Select Photographer to Take, Of Past-Presidents of Society, 187.

PILLSBURY, G. B.—Discussion by, 569.

PINCUS, SOL.—Discussion by, 217.

PIRNIE, H. MALCOLM.—Discussion by, 578.

Pittsburgh Section.—Abstract of Minutes of Meeting of, 132.

PORTER, H. HOBART.—Appointed Representative of Society on Division of Engineering of National Research Council, 438.

Portland, Ore. Section.—Abstract of Minutes of Meetings of, 451, 530, 588.

Power Conference. See World Power Conference.

Power Division.—Abstract of Minutes of Meetings of, 22, 213, 214, 577; Request of, And Action of Executive Committee of Board of Direction Relative to Ruling on Disbursement of Funds of, 198, 349; Approval of Revised Constitution of, 198; Election of Executive Committee of, 214; Annual Report of, 247.

PRATT, JOSEPH HYDE.—Discussion by, 23.

Preferred Numbers, Committee to Study Subject of. See American Engineering Standards Committee.

President.—Notes on Visits of, And Secretary, 439, 583.

Prizes.—Ceremony of Awarding Medals and, 143; Suggested Changes in Rules for Award of Medals and, 398; Authorization and Appointment of Committee to Recommend the Award

# PROCEEDINGS

# REGISTRATION

of Medals and, 398, 438; Award of Medals and, 578.

**Proceedings.**—Action of Board of Direction Relative to Printing in, Action Concerning Report of Committee on Local Sections, 206; Selection of Papers for, 445.

**Professional Conduct, Committee on.**—Appointment of, 209.

**Public Matters.** See Joint Committee on Co-operation on Public Matters.

**Public Relations Committee.**—Action of, Relative to Forest Preservation, 9; Reports of, 187, 430; Action of Board of Direction Relative to Reports of, 188, 430; Appointment of, 209; Report of Sub-Committee of, 432, 570.

**Public Works Conference.**—Meeting at Washington, D. C., of, 59; Resolutions of, Relative to Reorganization of Government Departments, 177.

**Public Works Conference.** See also Federal Engineering Work, Reorganization of.

**Public Works, Department of.** See Federal Engineering Work, Reorganization of.

**Publications, Committee on.**—Proposed Amendment to Article IV of By-Laws Relative to, 208.

**Purdue University Semi-Centennial.**—Appointment of Representative of Society to Attend, 439.

**Purdue University Student Chapter.**—Activities of, 395.

**PUTNAM, RUFUS W.**—Awarded the Wellington Prize, 578.

**Rail Joints, Committee on Welded.** See American Bureau of Welding.

**RALSTON, J. C.**—Address by, 143.

**RATHBUN, J. CHARLES.**—Paper by, 164; Discussion by, 164, 519.

**RAYMER, ALBERT REESOR.**—Biographical Sketch of, 525.

**Reading Room of the Society.**—Additions to, 368, 506; Action of Executive Committee of Board of Direction Relative to Closing, In Evenings, 492.

**Re-arrangement of Fifteenth Floor, Committee on.** See Society Headquarters.

**"Recent Developments in English Sewage Treatment,"** presented and discussed, 577.

**"Recreation Facilities,"** Presented and discussed, 578.

**REEVES, WILLIAM F.**—Appointed Chairman of Committee to Canvass Ballots for Nominees, 439.

**Registration of Engineers, Committee on.**—Decision of Executive Committee of Board of Direction Relative to Changing By-Laws to Provide for, 182; Progress Report of, 206; Discharge of Committee on, 206; Action of Board of Direction Relative to Question of Publishing Information Collected by, 206, 210; Appointment of Standing Committee on, 209, 352.

**Rensselaer Polytechnic Institute.**—Celebration of Centenary of, 548.

**Rensselaer Polytechnic Institute Student Chapter.**—Abstract of Minutes of Meeting of, 454.

**REQUARDT, G. J.**—Discussion by, 578.

**Research Committee.**—Statement on Relation of To Special Committees, 162; Progress Report of, 202, 401; Action of Board of Direction Relative to Report of, Concerning Policy of Providing for Research Work by Obtaining Funds from Outside Sources, 401.

**"Researches of the U. S. Bureau of Public Roads on the Structural Design of Highways,"** presented and discussed, 217.

**Resolution of Board of Direction Relative to Appointment of Elwood Mead as Commissioner of Reclamation,** 402.

**Resolution of Board of Direction Relative to Conference of Local Sections,** 428.

**Resolution of Board of Direction Relative to Death of George Gray Anderson,** 164.

**Resolution of Board of Direction Relative to Death of John Augustus Ocker-son,** 401.

**Resolution of Board of Direction Relative to Death of Walter J. Francis,** 402.

**Resolution of Board of Direction Relative to Freeman Fund,** 427.

**Resolution of Board of Direction Relative to Muscle Shoals Properties,** 402.

**Resolution of Board of Direction Relative to Photographs of Past-Presidents of Society,** 186.

**Resolution of Board of Direction Relative to Reduction of Federal Income Taxes,** 150.

**Resolution of Board of Direction Relative to Testimony Offered at Hearings of Congressional Committee on Reorganization of Executive Departments,** 403.

**Resolution of Executive Committee of Board of Direction Relative to Photographs of Past-Presidents,** 179.



## RESOLUTION

Resolution of Informal Conference of Local Sections Relative to Death of George Gray Anderson, 220.

Resolution of Public Works Conference Relative to Reorganization of Government Departments, 177.

Resolutions of Board of Direction and of Sanitary Engineering Division Relative to Securing a Commissioned Status for Sanitary Engineers, 154, 192.

RHEINGANS, WILLIAM J.—Discussion by, 214.

RIDGWAY, A. O.—On Committee on Local Sections, 209; On Committee on Districts and Zones, 439.

RIDGWAY, ROBERT.—Address by, 146; Appointed Representative of Society on Engineering Foundation, 351; Biographical Sketch of, 521.

RIGHTS, L. D.—Appointed Representative of Society on Board of Trustees of United Engineering Society, 351.

ROBINSON, HOLTON D.—Accepts Norman Medal for D. B. Steinman, 145.

Rochester Section.—Abstract of Minutes of Meetings of, 133; Election of Officers of, 133.

Rowland Prize.—Award of, 146.

Rudolph Hering Medal.—Adoption of Rules Governing Award of, 350.

RUSHMORE, DAVID B.—Discussion by, 569, 577.

RUST, CHARLES H.—Appointed Representative of Society to International Mathematical Congress, 438.

SABIN, L. C.—Discussion by, 569.

SACKETT, ROBERT L.—Paper by, 577.

Sacramento Section.—Abstract of Minutes of Meetings of, 451, 531, 554, 588; Election of Officers of, 451.

SADLER, HERBERT C.—Discussion by, 569.

St. Lawrence River, Special Technical Board to Investigate and Report on Improvement of.—Action of Executive Committee and of Board of Direction Relative to Proposed, 68, 179.

St. Louis Section.—Election of Officers of, 134; Abstract of Minutes of Meetings of, 452, 554.

San Diego Section.—Election of Officers of, 83; Abstract of Minutes of Meetings of, 452.

San Francisco Section.—Abstract of Minutes of Meetings of, 79, 123, 452, 504, 588; Subscribes to Alfred Noble Memorial Fund, 79; Election of Officers of, 123; Dinner of, To C. E. Grunsky, 336.

## SANBORN

SANBORN, JAMES FORREST.—Awarded the Croes Medal, 146.

Sanitary Engineering Division.—Abstract of Minutes of Meetings of, 84, 214, 215, 216, 217, 353, 577; Resolutions of, Relative to Desirability of Securing a Commissioned Status for Sanitary Engineers, 154, 192; Committee of, Appointed Special Committee of Society on Desirability of Securing a Commissioned Status for Sanitary Engineers, 193; Participation of, In International Conference on Sanitary Engineering Approved, 193; Annual Report of, 249; Report to, Relative to New Jersey State Sewage Experiment Station, 255; Progress Report of Committee on Friction of Sludge of, 258; Action of Executive Committee of Board of Direction Relative to Payment of Expenses of Committee of, 398.

Sanitary Engineers.—Resolutions. Relative to Securing a Commissioned Status for, 154, 192; Adoption by Annual Meeting of Resolution Relative to Securing a Commissioned Status for, 154; Arrangements for Convention of, 181; Action of Board of Direction Relative to Matter of Securing a Commissioned Status for, 193; Appointment of Representatives to Conference of, Authorized, 397.

SAVILLE, THORNDIKE.—Discussion by, 23.

Schedule of Proposed Sheet Steel Simplification, Conference on.—Appointment of Representative of Society to Attend, 586.

SCHEIDENHELM, F. W.—Discussion by, 214, 347.

Scholarships.—Information Relative to, At Columbia and Yale Universities, 330.

Scientific Congresses.—Action of Executive Committee and of Board of Direction. Relative to Payment of Mileage of Government Employees for Attendance at, 181, 188.

SEABURY, GEORGE T.—Discussion by, 219.

SEAMAN, HENRY B.—Letter of, Relative to Formation of Joint Committee on Steel Highway Bridges, 196.

SEATTLE SECTION.—Abstract of Minutes of Meeting of, 343.

"Secondary Stresses in Bridges", discussion on, 579.

Secretary.—Visits of, To Local Sections, 4, 57, 334, 439; Annual Report of, 135, 242; Authorized to Employ Clerical Help, etc., 198; Report of, On Visits to Local Sections, 399;

## SECTIONAL

## SMITH

Election of John H. Dunlap as, 404;  
 Injured in Train Wreck, 425; Increase in Salary of, 436; Notes on Visits of President and, 439; Resolutions of Board of Direction Relative to Death of, 492.  
 Sectional Committee on Drainage in Coal Mines. *See* American Engineering Standards Committee.  
 Sectional Committee on Fire Tests of Materials and Construction. *See* American Society for Testing Materials.  
 Sectional Committee on Underground Transportation in Coal Mines. *See* American Engineering Standards Committee.  
 Seismological Society. Comité on Building for Safety with Special Reference to Earthquake and Fire Hazard.—Appointment of Representative of Society to Serve on, 489.  
 "Sewage Disposal Problems in the Detroit Area", presented, 577.  
 Sewage Experiment Station. *See* New Jersey State Sewage Experiment Station.  
 SHAW, GEORGE H.—Appointed Representative of Society to Attend International Conference of Sanitary Engineers, 439.  
 Shenandoah.—Report of William H. Yates as Representative of Society at Christening of U. S. S., 12.  
 SHENEHON, F. C.—Appointed Councillor to Society for the Promotion of Engineering Education, 183; Discussion by, 214, 569; Paper by, 577.  
 SHERIDAN, LAURENCE D.—Paper by, 578.  
 SHERRILL, C. O.—Letter of Relative Reorganization of Federal Executive Departments, 573.  
 SHIRLEY, HENRY G.—Appointed Representative of Society on Advisory Board of Highway Research of National Research Council, 489.  
 Simplification of Manhole Frames and Covers for Street Use, Conference on.—Appointment of Representative of Society to Attend, 586.  
 SINGSTAD, OLE.—Discussion by, 436.  
 SKINNER, JOHN F.—Discussion by, 217.  
 SLATER, W. A.—Appointed Representative of Society to Attend Conference on Steel Reinforcing Bars, 549.  
 SMITH, H. H.—Discussion by, 436.  
 SMITH, H. S.—Appointed Representative of Society on Sectional Committees

on Underground Transportation in Coal Mines and on Drainage in Coal Mines, 586.  
 SMITH, J. WALDO.—Appointed Councillor to Society for the Promotion of Engineering Education, 183.  
 SMITH, LEONARD S.—Discussion by, 578.  
 SMITH, LLOYD B.—On Sub-Committee of Public Relations Committee, 433.  
 SMITH, WALTER M.—Discussion by, 569.  
 SNYDER, C. H.—On Committee on Effects of Earthquakes on Engineering Structures, 183.  
 Société Hydrotechnique de France.—Action of Board of Direction Relative to Letter of, Regarding Investigation of Hydro-Electric Plants, 206.  
 Société Vaudoise des Ingénieurs et des Architectes.—Appointment of Representative of Society to Attend Fiftieth Anniversary of, 438; Report of Representative of Society on Fiftieth Anniversary of, 546.  
 Society Badge. *See* Badge of Society.  
 Society, Districts and Zones. *See* Districts and Zones, Committee on.  
 Society, Financial Statement of Work of. *See* Financial Statement of Work of Society.  
 Society for the Promotion of Engineering Education.—Appointment of Representatives of Society as Councillors for, 183.  
 Society Headquarters.—Development of Rooms at, 75; Action of Executive Committee and Board of Directors Relative to Payment for Alterations of Fifteenth Floor at, 179, 186; Final Report and Discharge of Committee on Re-arrangement of Fifteenth Floor at, 206.  
 Society Headquarters. *See also* Engineering Societies Building.  
 Society, Meetings of the.—Minutes of, 22, 85, 135, 164, 347, 436, 519, 569, 578; Executive Committee Authorized to Make Arrangements for Meetings Abroad in Summer of 1924, 193; Action of Board of Direction Relative to Dates of Future, 404.  
 Society, Meetings of the. *See also* Annual Convention; Annual Meeting; Fall Meeting; Spring Meeting.  
 Society, Officers of the.—Report of Tellers on Ballot for, 152; Appointment of Tellers to Canvass Ballot for, Authorized, 399; Date for Sending Out Ballot for, Determined, 404; Appointment of W. F. Reeves as Chairman of Committee to Canvass Bal-

## SOCIETY

lot for, 439; List of Official Nominees for, 493; Biographical Sketches of Official Nominees for, 521.

Society, Officers of the.—*See also* Names of Officers.

Soils for Foundations, etc., Special Committee to Codify Present Practice on Bearing Value of.—Progress Report of, 157.

SPALDING, W. J.—Appointed Representative of Society to Attend Third Pan-American Scientific Congress, 489.

Special Committees.—Abstract of Minutes of Meetings of, 23, 354, 404; Action of Board of Direction Relative to Reports of, 211; Apportionment of 1924 Budget Appropriation for Work of, 212; Progress Reports of, 260; Discussion by Executive Committee of Board of Direction Relative to Financing, 348; Action of Executive Committee of Board of Direction Relative to Collecting Information on Mileage for, 397.

Special Committees. *See also* Names of Committees.

Specifications for Bridge Design and Construction, Special Committee to Consider and Recommend. *See* Bridge Design and Construction, Special Committee to Consider and Recommend Specification for.

SPOFFORD, CHARLES MILTON.—Biographical Sketch of, 524.

Spokane Section.—Election of Officers of, 83.

Spring Meeting, 1924, Atlanta, Ga.—Letter of Paul H. Norcross Relative to, 151; Brief Account of, 377.

Standard Construction Contracts, Special Committee on.—Progress Report of, 159.

Standardization of Cast Iron Pipe, Conference on.—Appointment of Representatives of Society to Attend, 438.

Standing Committees of Board of Direction. *See* Board of Direction.

Steel Column Research, Special Committee on.—Abstract of Minutes of Meetings of, 23; Progress Report of, 162; Discussion on Financing of, By Engineering Foundation, 213; Appropriation to, By Engineering Foundation, 352.

Steel Highway Bridges, Joint Committee on. *See* Joint Committee on Steel Highway Bridges.

Steel Reinforcing Bars, Conference on.—Appointment of Representative of Society to Attend, 549.

## STEINMAN

STEINBRENNER, MATILDA.—Action of Board of Direction Relative to Service of, With Society, 199.

STEINMAN, D. B.—Awarded Norman Medal, 143; Discussion by, 436, 519.

STILLWELL, LEWIS B.—Presides at Meeting, 22; Discussion by, 22; On Subcommittee of Public Relations Committee, 433.

STIMSON, EARL.—Appointed Representative of Society to Attend Conference on American Lumber Standards, 184.

STREHAN, GEORGE E.—Appointed Representative of Society on Sectional Committee on Fire Tests of Materials and Construction, 182, 352.

"Stresses in Multiple-Arch Dams", Awarded the Norman Medal, 576.

Stresses in Railroad Track, Special Committee on.—Donations to, 68; Progress Report of, 157, 286; Receives Donation for Work, 183; Abstract of Minutes of Meetings of, 404.

Stresses in Structural Steel, Special Committee on.—Progress Report of, 155, 263; Discussion on Progress Report of, 270; Action of Executive Committee of Board of Direction Relative to Report of, 348; Work of, 489.

STROBEL, CHARLES L.—Accepts Certificate of Honorary Membership for Onward Bates, 140.

Structural Safety, Joint Committee on. *See* Joint Committee on Structural Safety.

Student Chapters.—List of, And Officers of New, 26, 87, 297, 357, 394; Report of Committee on, 200; Authority Given to Organize, 200, 402; Action of Board of Direction Relative to Affiliation of, And Local Sections, 205; Proposed Amendment to Article V of By-Laws Relative to, 206; Appointment of Committee on, 209; Activities of, 345, 394, 453, 555.

Student Chapters. *See also* Names of Student Chapters.

SUTTON, CHARLES W.—Appointed Representative of Society to Attend Third Pan-American Scientific Congress, 489.

SWASEY, AMBROSE.—Awarded John Fritz Medal, 111.

Syracuse Section.—Action of Executive Committee of Board of Direction Relative to Allotment to, 182; Abstract of Minutes of Meetings of, 452; Election of Officers of, 452.

TALBOT, A. N.—Statement of, Concerning Relation of Research Committee



to Special Committees, 162; Recipient of Washington Award, 444; Appointed Representative of Society to Attend One-Hundredth Anniversary of the Invention of Portland Cement, 586.

Taxes, Federal Income.—Resolutions of Board of Direction Relative to Reduction in, 150; Report of Public Relations Committee Concerning, 187; Action of Board of Direction Relative to Report of Public Relations Committee Concerning, 188.

TAYLOR, H. BIRCHARD.—Discussion by, 214.

Technical Activities and Meetings, Committee on.—Proposed Amendment to Article IV of By-Laws Relative to, 208.

Technical Activities and Publications, Committee on.—Report of, 207, 436; Appointment of, 209.

Technical Divisions.—Abstract of Minutes of Meetings of, 22, 84, 213, 353, 577; Authority Granted Secretary to Send Letter to Membership Regarding, 184; Allotments Made to, 213, 349.

Tellers.—Report of, On Ballot for Officers, 152; Appointment of, To Canvass "First Ballot" for Officers Authorized, 399; Appointment of W. F. Reeves as Chairman of, To Canvass Ballot for Officers, 439.

Texas Section.—Abstract of Minutes of Meetings of, 19; Election of Officers of, 20.

"The Administration of Zoning Ordinances", presented and discussed, 578.

"The Analysis of Stresses in the Ring of a Concrete Skew Arch", presented and discussed, 164.

"The Design of a Multiple-Arch System and Permissible Simplifications", presented and discussed, 519.

"The Design of Earth Dams", Awarded the Croes Medal, 576.

"The Health Bases of Zoning", presented and discussed, 578.

"The Hydraulic Design of the Shaft Spillway for the Davis Bridge Dam, and Hydraulic Tests on Working Models", presented and discussed, 347.

"The Practice of Double Filtration of Water in Europe", presented and discussed, 217.

"The Principles Underlying Hydro-Electric Development", discussion on, 22.

"The St. Lawrence Deep Waterway to the Sea", presented and discussed, 569.

"The Secondary Effect of Certain Important River Bridges on Local Transit Conditions", presented and discussed, 436.

"The Street System", presented and discussed, 578.

"The Telephone System", presented and discussed, 578.

"The Water Supply", presented and discussed, 578.

THOMPSON, ELIHU.—Awarded Kelvin Medal, 56.

THOMPSON, T. KENNARD.—Discussion by, 22, 219, 436.

Timber, Special Committee on.—Appointment of, Withheld, 352; Action of Executive Committee of Board of Direction Relative to, 396.

Topographic Mapping. See Mapping, Topographic.

"Traffic Regulation on State Highways", discussion on, 578.

"Transportation", presented and discussed, 578.

Treasurer.—Annual Report of, 135, 246; Election of Otis E. Hovey as, 404.

"Treatment of the Sewage of Chicago", presented and discussed, 577.

TRIBUS, L. L.—Discussion by, 217.

TUSKA, GUSTAVE R.—Appointed Representative of Society to Attend Annual Meeting of American Academy of Political and Social Science, 399.

TUTTLE, ARTHUR S.—Paper by, 219; Discussion by, 219, 578.

TWINING, W. S.—Appointed Representative of Society to Attend Conference on "The Government, the People and the Price of Coal", 184.

"Two-Level Streets in Chicago, Illinois", presented and discussed, 219.

TYLER, JAMES.—Appointed Representative of Society to Attend International Conference of Sanitary Engineers, 439.

United Engineering Society.—Election of Officers of, 121; Appointment of

of, 121; Appointment of

of, 121; Appointment of

of, 121; Appointment of

of, 121; Appointment of

of, 121; Appointment of

of, 121; Appointment of

of, 121; Appointment of

of, 121; Appointment of

of, 121; Appointment of

of, 121; Appointment of

of, 121; Appointment of

## UNITED STATES

Authorization and Appointment of Representatives of Society on Advisory Committee on Structures and Fabricated Metals of, 397, 439.

United States.—Department of Commerce.—Letter of Division of Simplified Practice of, Inviting Society to Send Representatives to Conference on American Lumber Standards, 184.

United States.—Reclamation Service.—Facts Relative to Resignation of Arthur P. Davis as Director of, 7; Changes and Developments in, 64, 70; Deficiencies in Works of, 76; Elwood Mead Appointed Commissioner of, 378; Resolution of Board of Direction Relative to Appointment of Elwood Mead as Commissioner of, 402; Changes in Personnel of, 585.

University of Colorado Student Chapter.—Joint Meeting of, And Colorado Section, 123; Abstract of Minutes of Meetings of, 454; Election of Officers of, 455.

University of Illinois Student Chapter.—Activities of, 394.

University of Minnesota Student Chapter.—Activities of, 345.

University of Nebraska Student Chapter.—Activities of, 395.

University of North Carolina Student Chapter.—Abstract of Minutes of Meetings of, 455.

University of Pennsylvania Student Chapter.—Activities of, 345.

University of Texas Student Chapter.—Activities of, 395.

University of Utah Student Chapter.—Appointment of, Authorized, 402.

University of Washington Student Chapter.—Activities of, 346, 555.

University of West Virginia Student Chapter.—Activities of, 346.

UNWIN, W. C.—Appointed Representative of Society to Attend International Cement Congress, 382.

Utah Section.—Abstract of Minutes of Meetings of, 21, 343; Election of Officers of, 344.

VAN DUZER, W. A.—Discussion by, 578.

Virginia Polytechnic Institute Student Chapter.—Abstract of Minutes of Meetings of, 455.

Virginia Section.—Abstract of Minutes of Meetings of, 393, 452; Election of Officers of, 393.

WADDELL, J. A. L.—Discussion by, 270.

WALKER, E. M.—Discussion by, 578.

## WASHINGTON

Washington Academy of Sciences.—Letter of, Relative to Limitations Imposed on Government Workers Regarding Attendance at Scientific Congresses and Action of Executive Committee and of Board of Direction Relative to Matter, 181, 188.

Washington Award.—Appointment of Representative of Society on, 399; Arthur N. Talbot Receives, 444.

Washington State College Student Chapter.—Appointment of, Authorized, 402.

"Water Supply Problems in the Detroit Area", presented, 577.

WEBSTER, GEORGE S.—On Executive Committee of Board of Direction, 208; On Public Relations Committee, 209; On Committee on Honorary Membership, 210; Appointed Representative of Society to Attend Centenary Celebration of Franklin Institute, 439.

WEIR, M. W.—Discussion by, 436, 578.

Welded Rail Joints, Committee on. See American Bureau of Welding.

WELDMAN, W. A.—Discussion by, 578.

Wellington Prize.—Award of, 149, 576.

West Virginia University Student Chapter.—Abstract of Minutes of Meetings of, 455.

WESTON, C. M.—Discussion by, 214.

WHIPPLE, GEORGE C.—Paper by, 578.

WHITE, WILLIAM M.—Discussion by, 22.

WHITMAN, EZRA B.—On Committee on Technical Activities and Publications, 209; On Committee on Registration of Engineers, 352.

WHITTEN, ROBERT.—Paper by, 578.

WIGGIN, THOMAS H.—Appointed Representative of Society to Attend Conference on Standardization of Cast Iron Pipe, 438.

WIGHT, FRANK C.—Appointed Representative of Society to Attend Conference on "The Government, the People and the Price of Coal", 184.

WIGLEY, C. G.—Report to Sanitary Engineering Division Relative to New Jersey State Sewage Experiment Station, 255.

WILGUS, W. J.—Appointed Representative of Society to Attend National Immigration Conference, 13, 183.

WILLIAMS, F. P.—Discussion by, 569.

WILLIAMS, GARDNER S.—On Subcommittee of Public Relations Committee, 433; Presides at Meeting, 569; Discussion by, 569, 577.

WILLIAMS, J. P. J.—Discussion by, 22.

## WILLIAMS

- WILLIAMS, MAURICE W.—Discussion by, 569.
- WILLS, H. L.—Discussion by, 23.
- WING, C. B.—On Committee on Effects of Earthquakes on Engineering Structures, 183.
- WINSOR, FRANK E.—On Executive Committee of Board of Direction, 208.
- WINTER, I. A.—Paper by, 214; Discussion by, 214; Awarded the Laurie Prize, 576.
- Women's Auxiliary of Society.—Action of Board of Direction Relative to, 198.
- Worcester Polytechnic Institute Student Chapter.—Abstract of Minutes of Meetings of, 456; Election of Officers of, 456.
- World Power Conference.—Plans for, 112, 181, 379.

## YALE

- Yale University.—Scholarship in Transportation at, 330.
- Yale University Student Chapter.—Abstract of Minutes of Meetings of, 456.
- YATES, J. J.—On Committee on Technical Activities and Publications, 209; On American Engineering Standards Committee, 382.
- YATES, WILLIAM H.—Report of, As Representative of Society at Christening of U. S. S. *Shenandoah*, 12.
- Zones and Districts of the Society. *See* Districts and Zones, Committee on.
- "Zoning for Area", presented and discussed, 578.
- "Zoning for Height", presented and discussed, 578.
- "Zoning for Use", presented and discussed, 578.